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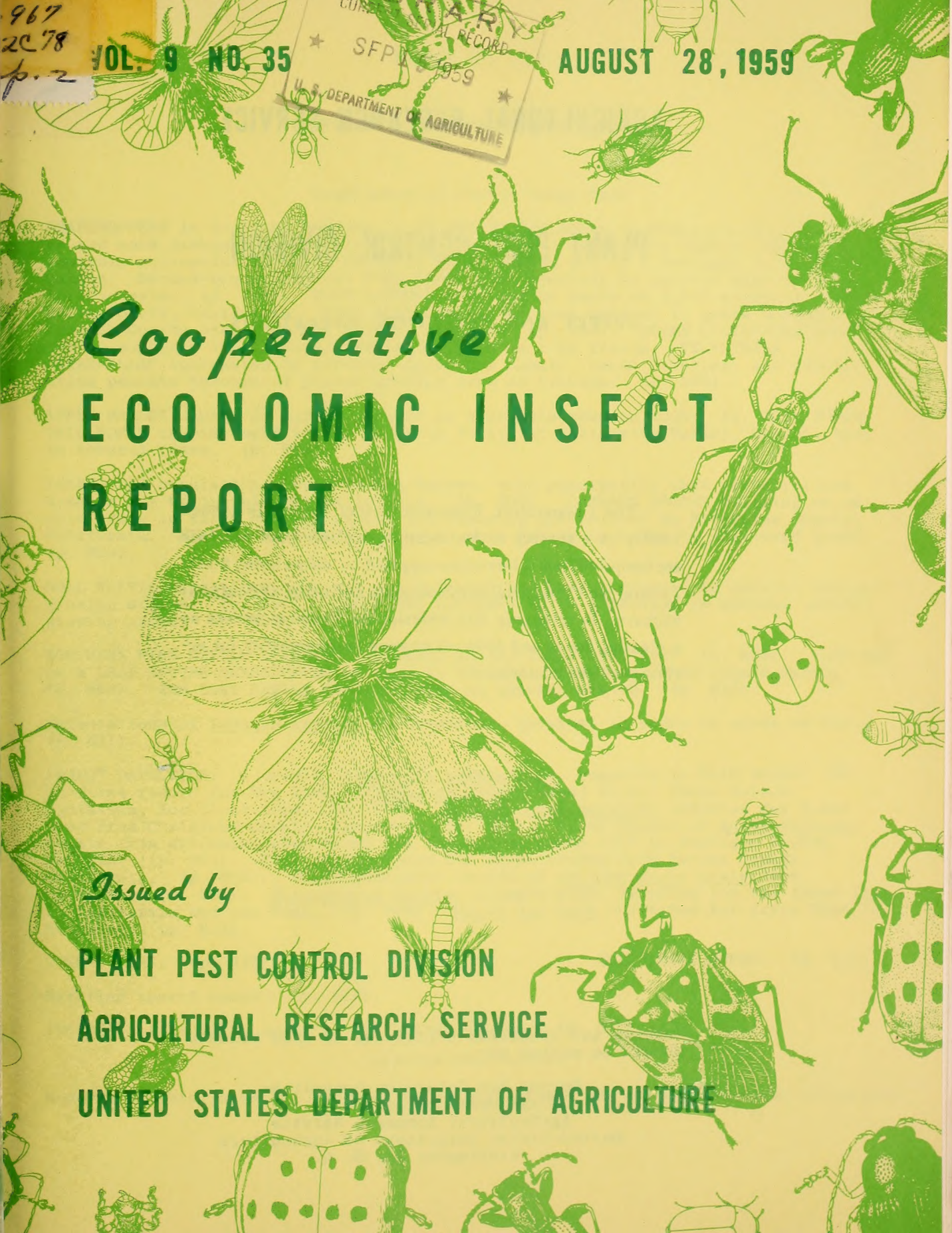
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# *Cooperative* ECONOMIC INSECT REPORT

*Issued by*  
PLANT PEST CONTROL DIVISION  
AGRICULTURAL RESEARCH SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL DIVISION

### SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Plant Pest Control Division  
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United States Department of Agriculture  
Washington 25, D. C.

## COOPERATIVE ECONOMIC INSECT REPORT

## Highlights of Insect Conditions

GRASSHOPPERS in damaging numbers on 40,000-50,000 acres in Phillips County and caused more damage to range grass than anticipated in Prairie County, Montana. Controls successful in Black Hills of South Dakota and in 3 counties in North Dakota. Second-brood EUROPEAN CORN BORER will possibly be greater than in 1958 in Wisconsin. (p. 797). CORN EARWORM infestation heavy on 5,000 acres of corn in Butte County, California. FALL ARMYWORM infestation general in grain sorghum from Conecuh County east to Henry County, Alabama. (p. 798). GREEN CLOVERWORM numerous on soybeans in Illinois, feeding on pods in some fields. VELVETBEAN CATERPILLAR increasing on soybeans in Jasper County, South Carolina, and defoliating peanuts throughout peanut-growing area of Alabama. (p. 800).

APPLE MAGGOT damage to apples greater in Wisconsin than in 1958. (p. 801). PEACH TWIG BORER causing more injury to peach fruits in Willamette Valley, Oregon, than in several years. (p. 802).

LEAFHOPPER populations heavy in New Jersey, with possibility that virus yellows disease may be troublesome in lettuce. (p. 803). CABBAGE LOOPER building up on cole crops in three eastern states and damaging watermelons in Riverside County, California. MEXICAN BEAN BEETLE causing some damage to beans in scattered areas. (p. 804).

BOLL WEEVIL migrations underway and infestations have increased in several cotton-growing states. (p. 806). BOLLWORMS continue to be a problem in several cotton-growing areas. (p. 806, 807).

SOUTHERN PINE BEETLE epidemic continues in two Texas counties. (p. 809). Outbreak of a LEAF-EATING GRASSHOPPER on oaks in Wisconsin involves 35-45 square miles. (p. 809). ELM LEAF BEETLE damaging elms in several states. (p. 810).

Infestations of Tabanus atratus on livestock, heaviest in years in areas of Texas. (p. 811).

INSECT DETECTION: A weevil, Hyperodes anthracinus, reported in CEIR 9(34): 786, is first record for New York. Sogata orizicola found in St. James Parish, Louisiana, for first time. (p. 799). Soybean cyst nematode reported for first time from Craighead County, Arkansas. (p. 801). First record of white-fringed beetle from Arkansas; also found for first time since 1946 in Muscogee County, Georgia. (p. 801). Pear psylla found for first record from Amador County, California. (p. 802). First published record of cottony maple scale from Oklahoma. (p. 809). Oligonychus aceris, a maple mite, recorded for the first time in California and the West. (p. 809). Brown dog tick collected for first time in Arkansas. (p. 811).

CORRECTIONS. (p. 813).

ADDITIONAL NOTES. (p. 815).

HAWAIIAN insect notes. (p. 816).

INSECTS not known to occur in the United States. (p. 817).

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Reports in this issue are for the week ending August 21, unless otherwise designated.

WEATHER OF THE WEEK ENDING AUGUST 24

Most of the Nation east of the Rocky Mountains continued hot and humid throughout the week, with moderate to locally heavy scattered showers and thunderstorms in many areas. Several states from the northern Great Plains to the Ohio Valley recorded the hottest week of the season. Cooler weather extended from New England to the Middle Atlantic States over the weekend, briefly replacing record or near-record heat in the latter section. Temperatures were generally near normal along the Gulf coast and in the lower Great Plains, where almost daily scattered showers left extremely variable rainfall amounts. Temperatures, near normal west of the Rocky Mountains early in the week, fell sharply over the Pacific Northwest, the northern Rockies, and the Great Basin at midweek, and widespread moderate to heavy showers, totaling from 1/4 to over 1 inch, were recorded throughout the Western States. The unseasonably cool weather, with readings 10° to 20° below normal, set new records for low maximum temperatures in interior California, and produced light frost in the Reno, Nevada, area on Thursday night. Unusually warm temperatures late in the week resulted in above-normal weekly averages along the California coast. Extreme heat, high winds, and generally inadequate rain in the northern Great Plains caused rapid soil-moisture depletion. Maximum temperatures above 100° were general early in the week, reaching 112° at Vivian, 111° at Pierre, and 109° at Phillip and Aberdeen, South Dakota, and 106° at Grand Rapids and Kensal, North Dakota, on the 18th.

Heavy showers left over 5 inches of rain in parts of north and central Iowa during the weekend, with 7.21 inches at Forest City, and scattered showers in Arkansas brought 4.77 inches during the week at Searcy. Hot and humid conditions were predominant over the Great Lakes, the Ohio Valley, and the South Atlantic States, with little daily change, and rainfall was highly variable. High temperatures caused a rapid drain on moisture, and dry to very dry soils were reported from northeastern Georgia to the Middle Atlantic States. In the Northeast, showers at the beginning and end of the week and widespread rain in New England on the 24th left light to locally heavy precipitation totals. Much of Vermont and Rhode Island and sections of New York and Massachusetts were reported very dry. (Summary supplied by U. S. Weather Bureau).

## CEREAL AND FORAGE INSECTS

GRASSHOPPERS - MONTANA - Reports indicate damaging numbers are present north of Malta in Phillips County. It appears the infestation covers 40,000 to 50,000 acres. There was more damage to range grass during July in Prairie County than was anticipated. Indications are that range species are extremely numerous in Richland County. (PPC, West. Reg., July Rpt.). SOUTH DAKOTA - An estimated 36,992 acres in the Black Hills were treated under a cooperative program and another 29,150 acres were treated under a voluntary program. The severe Melanoplus bilituratus infestation in the Black Hills area was reduced to noneconomic by these programs. NORTH DAKOTA - A cooperative program was completed July 15-28 in Golden Valley, Billings and Slope Counties which controlled grasshoppers on 12,597 acres of government and private rangeland. (PPC, Cent. Reg.). Light infestations of M. femur-rubrum present in many alfalfa fields through Richland, Sargent and Ransom Counties. (N. D. Ins. Rpt.). KANSAS - Counts of Melanoplus femur-rubrum, M. differentialis and M. bilituratus range from less than 1 to 5 per square yard in central and north central areas of the State. (Peters). OKLAHOMA - Ranged 5-30 per square yard in 2 roadside margins and 0.2-0.6 per sweep in an alfalfa field checked in Caddo County; 1-8 per square yard in 4 pasture areas surveyed in Kiowa County. (Hudson). WISCONSIN - M. femur-rubrum nymphs averaged 6-8 per square yard in most legume fields examined in northeastern counties; however, one field in Manitowoc County averaged 24 per square yard and one Winnebago County field averaged 30 per square yard. Nymphs are mainly in fourth and fifth instars, except in Door, Kewaunee and Brown Counties where third and fourth instars are most common. A few adults, chiefly on roadsides, were present. (Wis. Coop. Sur.). INDIANA - Noneconomic to light in localized areas in southeastern counties. Highest infestations averaged about 5 per square yard along field margins. Adults of M. differentialis and M. femur-rubrum were observed, with the latter species containing well developed eggs. (Deay, Matthew).

A FIELD CRICKET - NORTH DAKOTA - Extremely high populations of an undetermined species observed in Hettinger County. (N. D. Ins. Rpt.).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NORTH DAKOTA - Pupation ranged 0-40 percent in southeastern counties. No moth emergence noted. (N. D. Ins. Rpt.). OKLAHOMA - Approximately 5 percent of plants infested in fields of late corn checked in the Bixby area, which is heaviest infestation in these fields in last 5 years. (Arbuthnot). WISCONSIN - Moths which give rise to second-brood borers appear fairly numerous in light traps. It appears the second-brood infestations will be greater than in 1958. Dissections of corn indicate flight will continue for a while. In Dane County, 12.5 percent are in pupal stage and 12.5 percent have emerged. (Wis. Coop. Sur.). INDIANA - Infestations in field corn ranged 4-56 percent and averaged 24 percent in Madison County. (Deay, Matthew). MARYLAND - Young larvae generally light on sweet and field corn on Eastern Shore. Pupae present in field corn in Worcester County. (U. Md., Ent. Dept.). PENNSYLVANIA - Adults quite abundant in corn in Centre County, and flying to lights. (Udine). LOUISIANA - Light in a Madison Parish corn field. (Spink).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - TEXAS - Infestations in corn averaged 75-80 percent in Panola, Cherokee, Harrison, Marion, Cass and Bowie Counties. (Hawkins). OKLAHOMA - Infestation 80 percent in corn in a home garden checked at El Reno. (Pennington).

CORN EARWORM (Heliothis zea) - IDAHO - Larval infestations in corn have increased following a recent increase of adults in southeastern area. In one sweet corn field near Parma, 25 percent of ears were infested with mostly second-instar larvae. (Scott). UTAH - Moth counts increased recently in light trap at Ogden. Sweet corn coming into canneries now averages 8 percent infested ears. (Dorst, Knowlton). NEVADA - Larvae averaged 2-3 per half-grown corn plant in Las Vegas, Clark County. (Bechtel, Lauderdale, Aug. 14). ARIZONA - Infesting 30 percent of heads of star millet at Aguila, Maricopa County, with considerable damage

to seed in infested heads. (Ariz. Coop. Sur.). TEXAS - Light to heavy on peanuts in Frio County and causing slight ragging to complete defoliation of plants. (Harding). OKLAHOMA - Ranged 0-0.3 per sweep in alfalfa fields checked in Arkansas River bottoms in east central area, with a 34 percent infestation of heads noted in a field of loose-headed grain sorghum in Haskell County (VanCleave, Hatfield); ranged 1-6 per 100 heads in a grain sorghum field in Caddo County (Hudson); heavy (1.5 per terminal) in a field of late planted grain sorghum in the Lebanon area and averaged 1.5 per foot of row in a peanut field in same area (Vinson). WISCONSIN - Weather has been favorable for moth flights. In general, numbers of moths caught in light traps show a considerable increase over last week, and it is expected the increase will be even greater. (Wis. Coop. Sur.). ALABAMA - Moderate larval infestation in grain sorghum heads in Henry County. Limited numbers of larvae observed on peanut vines in southeast part of State. (Grimes). Heavy in grain sorghum in Jackson County. (Ruffin). GEORGIA - Light on peanuts in southern part of the State. (Johnson). MARYLAND - Small larvae present in 4-25 percent of field corn ears on lower Eastern Shore. Very light in sweet corn. (U. Md., Ent. Dept.). DELAWARE - In Sussex County, most larvae have pupated; young larvae remain common in ears of field corn in New Castle and Kent Counties. (Mason). CALIFORNIA - Heavy in 5,000 acres of corn in the Chico-Durham areas of Butte County. (Cal. Coop. Rpt.).

FALL ARMYWORM (Laphygma frugiperda) - NEW JERSEY - Light trap counts indicate adults are fairly numerous. (Ins. Dis. Newsl.). MARYLAND - Generally light on Eastern Shore. Controls necessary in some fields of late sweet corn. (U. Md., Ent. Dept.). ALABAMA - General infestation observed in grain sorghum from Conecuh County east to Henry County. Larvae ranged from second instar to almost mature, with half-grown larvae predominant. (Grimes). GEORGIA - Infestations in peanuts light in southern parts of the State. (Johnson). ARIZONA - Very light in heads of star millet at Aguila, Maricopa County. Increasing in heads of grain sorghum in Cochise County and present in late corn in central area. (Ariz. Coop. Sur.).

ARMYWORM (Pseudaletia unipuncta) - NEW JERSEY - Light trap counts indicate adults are fairly numerous. (Ins. Dis. Newsl.). MARYLAND - Larvae injuring a hayfield at Easton, Talbot County, and another at Federalsburg, Caroline County. (U. Md., Ent. Dept.).

SORGHUM WEBWORM (Celama sorghiella) - TEXAS - Heavy on maize in Anderson County. (Texas Coop. Rpt.). OKLAHOMA - Infestation of seed heads 2 percent in a field of loose-headed grain sorghum in Haskell County. (VanCleave, Hatfield). Ranged 8-30 per head in a Lebanon area grain sorghum field. (Vinson). ALABAMA - Larvae heavy in grain sorghum in Jackson County. (Ruffin).

SUGARCANE BORER (Diatraea saccharalis) - LOUISIANA - One hundred percent damage observed in sorghum at Baton Rouge and in corn at Crowley and Baton Rouge. (Spink).

NORTHERN CORN ROOTWORM (Diabrotica longicornis) - MISSOURI - Adults feeding on corn silks and grain sorghum heads; ranged 3-6 per ear in late corn and 0-5 per head in sorghum in northeast area of State. (Kyd, Thomas, Munson).

CORN LEAF APHID (Rhopalosiphum maidis) - SOUTH DAKOTA - Counts high on corn plants in east central part of State. (Mast). WYOMING - Infestation has moved from tassels to leaves and ears of corn. Population in southeastern area appears lower than in 1958. No economic damage to date. (Davison). UTAH - Scarce on corn examined in Garfield County. (Knowlton). KANSAS - Ranged from zero to about 50 per plant in some sorghum fields in central and north central areas. (Peters). OKLAHOMA - Averaged 50 per head in a late planted grain sorghum field in the Lebanon area. (Vinson). MARYLAND - Well distributed in late planted sweet corn on Eastern Shore, but control is being affected by a syrphid, Mesogramma polita. (U. Md., Ent. Dept.). DELAWARE - Colonies numerous in Sussex County and remain present in New Castle and Kent Counties on field corn. (Mason).

EUROPEAN EARWIG (Forficula auricularia) - CALIFORNIA - Heavy in corn in Jackson, Amador County. (Cal. Coop. Rpt.).

SPIDER MITES - WYOMING - Tetranychus telarius continues to infest field corn in southeastern part of State, remaining on leaves on lower two-thirds of plant. No economic damage noted. (Davison). ILLINOIS - Unspecified species reported damaging soybeans in central section of State. (Ill. Ins. Rpt.).

A RICE DELPHACID (Sogatia orizicola) - LOUISIANA - This vector of hoja blanca disease found in St. James Parish. Present in very low numbers and only 5 specimens were collected in the parish. (Spink).

RICE WATER WEEVIL (Lissorhoptrus oryzophilus) - LOUISIANA - Heavily damaging a field of rice in Madison Parish. (Spink).

RICE STINK BUG (Oebalus pugnax) - LOUISIANA - Averaged 73 adults per 100 sweeps in 6 fields of rice in Ascension Parish and 200 per 100 sweeps in a Madison Parish field. (Spink).

SOD WEBWORMS (Crambus spp.) - KANSAS - Infesting blue grass lawns in Manhattan, Riley County. (Peters).

GROUND MEALYBUG (Rhizococcus falcifer) - CALIFORNIA - Heavy on grasses and other plants in Concord, Contra Costa County. (Cal. Coop. Rpt.).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - CALIFORNIA - Causing severe damage to alfalfa generally in the El Centro area of Imperial County. (G. D. Peterson, Jr.). NEVADA - Averaged one per 2 sweeps in a field in Las Vegas area, Clark County. (Bechtel, Aug. 14).

BEET ARMYWORM (Laphygma exigua) - NEVADA - Light in alfalfa in Las Vegas area, Clark County, and Pahrump Valley, Nye County. (Bechtel, Lauderdale, Parker, Aug. 14).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - Averaged one per stem in stubble and 10-15 per stem in fields ready for cutting in Las Vegas, Clark County; 5 per sweep in Moapa Valley, Clark County; and 7-10 per sweep in Pahrump Valley, Nye County. (Bechtel, Parker, Aug. 14). UTAH - Populations remain very low in Millard, Garfield and Beaver Counties. (Knowlton). KANSAS - Ranged from less than 5 to 25 per sweep in central and north central alfalfa fields. Averaged about 350 per sweep on a roadside embankment in Smith County. (Peters). OKLAHOMA - Very light (up to 3 per sweep) in alfalfa fields surveyed in Arkansas River bottoms in east central area. Counts approximately same as noted in the area for past several months. (VanCleave, Hatfield). Ranged 1.5-2.5 per sweep in a Caddo County alfalfa field. (Hudson). TEXAS - Medium infestations damaging alfalfa in Deaf Smith County. (Garner).

PEA APHID (Macrosiphum pisi) - WEST VIRGINIA - Moderate to very heavy on alfalfa in scattered areas of the State. (W. Va. Ins. Sur.). DELAWARE - Prevalent to numerous on alfalfa in all 3 counties, being abundant in one small field in Kent County. (Mason). WISCONSIN - Populations continue to decline. (Wis. Coop. Sur.). TEXAS - Light on alfalfa in Deaf Smith County. (Garner). WYOMING - Infestation in third-cutting alfalfa in southeast area averages 60-90 per 100 sweeps. (Davison). UTAH - Caused moderate damage to several alfalfa fields in the Circleville-Marysville area of Piute County. (Knowlton). NEVADA - Only occasional specimens found in alfalfa in Clark and southern Nye Counties. (Bechtel, Parker, Aug. 14).

PLANT BUGS (Adelphocoris spp.) - SOUTH DAKOTA - A. lineolatus averaged 5 per 10 sweeps in alfalfa in Beadle County. (Mast). UTAH - A. superbus common in alfalfa fields in Millard, Utah and Weber Counties and in Uintah Basin. (Knowlton).

WISCONSIN - Populations in alfalfa continue to decline. (Wis. Coop. Sur.).  
DELAWARE - Adults and nymphs of A. lineolatus prevalent in one large alfalfa field in Sussex County, and present in New Castle and Kent Counties. (Mason).

LYGUS BUGS (Lygus spp.) - WYOMING - Infestations low in seed alfalfa in Riverton area, Fremont County. Danger of damage past, and last controls applied week ending August 14. Probability of good yield of seed bright in most areas. (Davison). IDAHO - Nymphal numbers increased rapidly in alfalfa and red clover seed fields in southwest area of State, with up to 50 per sweep not uncommon. (Gibson).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - NEVADA - Averaged 3-5 per sweep in alfalfa in Las Vegas and Moapa Valley, Clark County. (Bechtel, Parker, Aug. 14). OKLAHOMA - Very light populations (0-0.2 per sweep) found in alfalfa fields surveyed in Arkansas River bottoms in east central area. (VanCleave, Hatfield).

POTATO LEAFHOPPER (Empoasca fabae) - SOUTH DAKOTA - Populations very high in some lawns in Brookings County. (Mast). WISCONSIN - Populations appear to be declining in alfalfa. (Wis. Coop. Sur.). DELAWARE - Adults and nymphs on soybeans in all counties; present on alfalfa in Kent and Sussex Counties and common on same crop in New Castle County. (Mason).

BLACK BLISTER BEETLE (Epicauta pennsylvanica) - SOUTH DAKOTA - Averaged as high as 40 per 10 sweeps in margins of some alfalfa fields in central and south central areas. (Mast). NORTH DAKOTA - Light to moderate in alfalfa through Richland, Sargent and Ransom Counties. Infested plants show no feeding injury. Also reported heavy in Adams and Hettinger Counties. (N. D. Ins. Rpt.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSOURI - Counts on soybeans in northeast ranged 0-3 per foot of row and 2-7 in southeast. Some foliage damage and feeding on pods and blooms in southeast area. (Kyd, Thomas, Munson). OKLAHOMA - Ranged up to 0.2 per linear foot in soybean fields checked in Arkansas River bottoms in east central area. (VanCleave, Hatfield).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - OKLAHOMA - Ranged 0-0.1 per sweep in alfalfa fields and up to 0.2 per linear foot in soybean fields checked in Arkansas River bottoms in east central area. (VanCleave, Hatfield).

GREEN CLOVERWORM (Plathypena scabra) - ILLINOIS - Numerous on soybeans and reported feeding on pods in some fields. (Ill. Ins. Rpt.). MISSOURI - Counts in soybeans in northeast area ranged 0-4 per linear foot of row and 1-2 in southeast area. (Kyd, Thomas, Munson). OKLAHOMA - Ranged 0-0.1 per sweep in alfalfa fields surveyed in Arkansas River bottoms in east central area. (VanCleave, Hatfield). MARYLAND - One small larva per foot of row on soybeans in Worcester County. (U. Md., Ent. Dept.). DELAWARE - Larvae prevalent in New Castle and Kent Counties and common in Sussex County on alfalfa. Larvae very common in soybeans in Kent and Sussex Counties. General increase in numbers noticeable throughout State. (Mason).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - SOUTH CAROLINA - Numbers increasing in soybeans in Jasper County. (Nettles et al.). GEORGIA - Light infestations present in southern area peanuts. (Johnson). ALABAMA - Defoliating peanuts throughout the peanut-growing section of the State. Generally, infestations are moderate; however, in localized areas of Houston, Geneva and Henry Counties, severe defoliation had occurred. (Grimes, Carter).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - ALABAMA - Moderate infestation observed on peanuts in Henry County. (Grimes).

SOYBEAN CYST NEMATODE (Heterodera glycines) - NEW JERSEY - To date, 26 soil samples were collected during inspections made in July. VIRGINIA - A total of 651 samples were taken on 3 farms in Norfolk and Southampton Counties, involving 489 acres. In MARYLAND and DELAWARE, 1,867 samples representing 1,181 acres and 78 properties were processed during July, with negative results. (PPC, East. Reg.). ARKANSAS - The first infestation in Craighead County was found during July. TENNESSEE - Two new infestations were reported from Lauderdale County. NORTH CAROLINA - Inspections were made on 1,310 acres in 11 counties. SOUTH CAROLINA - Surveys were conducted on 2,139 acres in 5 counties. (PPC, So.Reg.). MISSOURI - During July, 21 new properties consisting of 703 acres have been confirmed infested. KENTUCKY - Three additional infested properties were found in Fulton County. (PPC, Cent. Reg.).

A CUTWORM - GEORGIA - Infestations heavy on peanuts in Early County. (Johnson).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - TEXAS - Heavily damaged 92-100 percent of young peanuts in Frio County; larvae eating nuts of spring plantings. (Harding).

CABBAGE LOOPER (Trichoplusia ni) - GEORGIA - Light on peanuts in southern area of State. (Johnson).

RED-NECKED PEANUTWORM (Stegasta basqueella) - TEXAS - Light (1 per terminal per foot of row) in Frio County on peanuts. Some feeding damage evident. (Harding). OKLAHOMA - Averaged 3.5 per linear foot of row in a peanut field in the Lebanon area. (Vinson). ALABAMA - Infestations increasing in localized areas of Geneva County. (Carter).

WHITE-FRINGED BEETLES (Graphognathus spp.) - GEORGIA - Found for the first time since 1946 in Muscogee County, during July. LOUISIANA - Surveys revealed 206 acres of new infestations in 5 parishes already known to be infested. NORTH CAROLINA - An additional 130 acres were found infested in 3 counties. SOUTH CAROLINA - In Florence County, an additional 5 acres were found infested during July. TENNESSEE - A new infestation of 239 acres was found in Shelby County and 10 additional acres were found in Hardeman County. Beetles were found north of the Wolf River in Raleigh, Shelby County, for the first time. (PPC, So. Reg.). ARKANSAS - Two adults of Graphognathus leucoloma striatus collected at Widner, near Forrest City, St. Francis County, on July 16; found in an area including 900 acres of cropland and 157 acres of noncropland. The area in which the beetles were found and a sufficient periphery around was surface treated. Delimiting surveys were conducted in the area, with negative results. This is the first record of white-fringed beetles in the State. (Ark. Ins. Rpt., PPC).

#### FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - WISCONSIN - Widespread damage to apple fruit; greater than in 1958. (Wis. Coop. Sur.).

WOOLLY APPLE APHID (Eriosoma lanigerum) - OKLAHOMA - Heavy on a few small apple trees in a nursery plot in the east central area. (Rogers, Washum). UTAH - Less common than in 1958. (Knowlton).

APPLE MAGGOT (Rhagoletis pomonella) - WISCONSIN - Widespread damage to apple fruit; greater than in 1958. (Wis. Coop. Sur.).

EUROPEAN APPLE SAWFLY (Hoplocampa testudinea) - NEW JERSEY - In a survey, 552 trees were examined at 60 locations in 7 counties. New infestations were found in areas of Middlesex, Somerset, Morris and Sussex Counties. (Ins. Dis. Newsl.).

LEAFHOPPERS - UTAH - Discoloring apple and rose foliage at Levan and Magna. (Knowlton).

FALL WEBWORM (Hyphantria cunea) - DELAWARE - Common in all counties and building up on apple, crab apple, black walnut and cherry. (Mason). PENNSYLVANIA - Causing moderate defoliation to walnut and apple trees along the Delaware River in Pike County. (Nichols, Aug. 14). NORTH DAKOTA - Becoming conspicuous on scattered fruit trees in the eastern area. (N. D. Ins. Rpt.).

ORCHARD MITES - UTAH - Damage common on apple and pear trees through the northern and central areas. (Knowlton). CALIFORNIA - Tetranychus telarius and T. pacificus medium to heavy on English walnut trees and building up over a widespread area in Lake County. (Gripp).

PEAR PSYLLA (Psylla pyricola) - OREGON - Building up rapidly in some orchards around Salem. (Stephenson). CALIFORNIA - Light on pear trees in Jackson, Amador County, for first record of the county. (Cal. Coop. Rpt.).

PEAR-SLUG (Caliroa cerasi) - RHODE ISLAND - Second-generation larvae causing severe damage on pear and cherry in Pawtucket and North Providence area. (Mathewson).

PEACH TWIG BORER (Anarsia lineatella) - OREGON - Causing greater amount of injury to peach fruits in the Willamette Valley than in several years. (Every).

Citrus Insect Situation, Lake Alfred, Florida, Mid-August, 1959 - PURPLE SCALE (Lepidosaphes beckii) activity dropped from the previous low level. FLORIDA RED SCALE (Chrysomphalus aonidum) showed sharp decrease in activity to below normal level. An upward trend will begin within next two weeks and hatching will increase in September. CITRUS RED MITE (Panonychus citri) activity decreased and will drop lower until the end of August. CITRUS RUST MITE (Phyllocoptruta oleivora) activity continued to drop and is expected to decrease further during next three weeks. TEXAS CITRUS MITE (Eutetranychus banksi) will begin to increase in September and is expected to be abundant this fall. (Simanton, Thompson, Johnson).

PURPLE SCALE (Lepidosaphes beckii) - CALIFORNIA - Medium on orange trees in Rancho Santa Fe, San Diego County. (Cal. Coop. Rpt.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Reinspection of the Nuevo Laredo District was negative. The area between Oyama, Tamaulipas, to the Nuevo Leon State line has been taken out of chemical control and placed under biological control. In the chemical control and free zones of the States of Tamaulipas, Nuevo Leon, Sonora and Baja California, 100,425 citrus trees were inspected on 2,388 properties. In six properties, 99 lightly infested trees were found. In the biological control zone in the State of Tamaulipas, 22,500 Prospaltella clypealis parasites were liberated in Municipio Ocampo. (PPC, Mex. Reg.). TEXAS - A total of 87,432 trees on 2,352 properties were inspected during July in Brooks, Cameron, Dimmit, Hidalgo and Webb Counties. (PPC, So. Reg.).

MEDITERRANEAN FRUIT FLY (Ceratitis capitata) - LOUISIANA - Checks of 106 traps operated in Jefferson, Orleans, Plaquemines and St. Bernard Parishes were negative in July. GEORGIA - Inspections of 27 traps in 6 counties during the month, gave negative results. TEXAS - No suspicious specimens were taken in 70 trap inspections made in July in Cameron County. (PPC, So. Reg.).

MEXICAN FRUIT FLY (Anastrepha ludens) - MEXICO - Third and fourth sprayings of Tijuana were completed in July. A total of 31,857 trees were sprayed on 6,456 properties. A total of 8,151 trap inspections were made on 872 properties in Ensenada, Tecate and Tijuana, Baja California, with negative results. Larval inspections were made on 12 properties in Tijuana, with negative results. (PPC, Mex. Reg.).

BURROWING NEMATODE (Radopholus similis) - FLORIDA - Surveys were conducted in 81 groves, 41 citrus nurseries, 10 ornamental nurseries and 40 miscellaneous properties during July. Delimiting inspections were made in 11 groves and a total of 20.5 acres was reported ready for treatment by the State Plant Board. New infestations were discovered in 12 citrus groves, 2 citrus and 3 ornamental nurseries and on one proposed nursery site. Extensions were discovered in 8 properties previously treated. (PPC, So. Reg.).

PECAN NUT CASEBEARER (Acrobasis caryae) - NORTH CAROLINA - Causing loss of pecan nuts in Martin County. (Hodges, Farrier). OKLAHOMA - Light to medium in nut clusters in native pecan trees checked in Jefferson and Marshall Counties. (Vinson).

PECAN WEEVIL (Curculio caryae) - NORTH CAROLINA - Causing loss of pecan nuts in Martin County. (Hodges, Farrier).

WALNUT HUSK FLY (Rhagoletis completa) - CALIFORNIA - Averaged 1,500 caught in traps hung in pecan trees in El Cajon, San Diego County, in one week. (Cal. Coop. Rpt.).

OYSTERSHELL SCALE (Lepidosaphes ulmi) - CALIFORNIA - Medium on English walnut trees in Ukiah, Mendocino County. (Cal. Coop. Rpt.).

A MEALYBUG (Pseudococcus malacearum) - CALIFORNIA - Light on grape vines in Gonzales, Monterey County. (Cal. Coop. Rpt.).

PLANTHOPPERS - FLORIDA - Increasing in the Pensacola district on figs and bottlebrush. Numbers unusually high. (Fla. Coop. Sur.).

CHAIN-SPOTTED GEOMETER (Cingilia catenaria) - PENNSYLVANIA - Has completely defoliated blueberry plants in Sullivan County. (Gesell).

#### TRUCK CROP INSECTS

POTATO APHID (Macrosiphum solanifolii) - WISCONSIN - Present in 80 percent or more of the potato acreage in the Racine-Kenosha area. (Wis. Coop. Sur.).

Potato Aphids in Maine - Still have a spotty distribution, with overall numbers ranging from very small to large in the Presque Isle area. Numbers decreased somewhat during the week, owing largely to continued action of predators and parasites, and to a sharp increase in prevalence of fungus diseases. Macrosiphum solanifolii still predominates, except that where populations are largest Aphis abbreviata is the most abundant species. Myzus persicae is generally the second most abundant and M. solani has recently become very scarce. (Shands).

FLEA BEETLES - WISCONSIN - In small numbers in 60-80 percent of the potato acreage. (Wis. Coop. Sur.). MAINE - Epitrix cucumeris adults of summer generation in small numbers in the Presque Isle area. (Shands). OREGON - E. tuberos present on potatoes near Dayton, about one per 5 sweeps. (Larson).

POTATO PSYLLID (Paratrioza cockerelli) - WYOMING - Continues to decrease in the southeast area. Largest infestation found is south of Lingle, with 6 per 100 sweeps. Trace damage was noted. (Davison).

LEAFHOPPERS - NEW JERSEY - Populations high, with possibility that virus yellows disease may be troublesome in lettuce. (Ins. Dis. Newsl.). DELAWARE - Empoasca fabae adults and nymphs fairly common on lima beans throughout the State. (Mason). WISCONSIN - Small numbers of E. fabae in 60-80 percent of the potato acreage. (Wis. Coop. Sur.). TEXAS - Circulifer tenellus heavy and causing leaves to curl on tomatoes in Bailey County. (Hatchett).

GREEN PEACH APHID (Myzus persicae) - VIRGINIA - Very heavy on peppers in some sections of the eastern area. (Hofmaster).

EUROPEAN CORN BORER (Pyrausta nubilalis) - ALABAMA - Has caused only light damage to pimento peppers in Marshall County this year. (Ruffin).

CABBAGE LOOPER (Trichoplusia ni) - NEW JERSEY - Building up on cabbage. (Ins. Dis. Newsl.). DELAWARE - Egg deposition heavy on young cabbage in New Castle County, with an average of 9 eggs per leaf. Larvae present on horseradish in Kent County and snap beans in Sussex County. (Mason). VIRGINIA - Continues to build up on cabbage and cole crops in eastern and southeastern areas. Based on light trap catches, the infestation is not quite as heavy as in 1958. (Hofmaster). ARIZONA - Very light in some lettuce fields at Aguila, Maricopa County. (Ariz. Coop. Sur.). CALIFORNIA - Caused considerable damage to watermelons in the Peris Valley, Riverside County, by feeding on the surface of the melons. (Campbell, Aug. 14).

IMPORTED CABBAGEWORM (Pieris rapae) - NEW JERSEY - Building up on cabbage. (Ins. Dis. Newsl.). OREGON - Increasing in abundance in the Willamette Valley on broccoli. (Every, Aug. 17).

HARLEQUIN BUG (Murgantia histrionica) - NEBRASKA - Very numerous on weeds and wild flowers in range and pastures of many southwestern counties. (Webb, Aug. 15). SOUTH DAKOTA - Working on cabbage in Hughes County. (Mast).

APHIDS - NEW JERSEY - Heavy in cabbage in some areas of State. (Ins. Dis. Newsl.). IDAHO - Many late noncolonizing species seen in bean fields in Twin Falls area. (Gibson).

TURNIP APHID (Rhopalosiphum pseudobrassicae) - VIRGINIA - Unusually heavy on turnip greens and mustard in eastern and southeastern areas. (Hofmaster).

MEXICAN BEAN BEETLE (Epilachna varivestis) - WYOMING - In untreated bean fields in the Wheatland-Lingle-Torrington areas, infestations average about 9 adults and 12 larvae per 25 sweeps. Damage ranges 5-20 percent. (Davison). UTAH - Very destructive to home garden beans in Cache and Salt Lake Counties. (Knowlton). TEXAS - Heavy on garden beans in Deaf Smith County. (Garner). INDIANA - Heavy in home gardens in Jefferson and Ripley Counties. (Matthew). VIRGINIA - Causing damage to snap beans in localized eastern areas. (Hofmaster). DELAWARE - Adults and larvae fairly common on lima beans in Sussex County, with moderate feeding injury in some fields. (Mason).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - VIRGINIA - Damaging snap beans in localized eastern areas. (Hofmaster).

THRIPS - IDAHO - Many bean plants infested in the Twin Falls area. Infestation not thought to be economic. (Gibson). DELAWARE - Sericothrips variabilis adults present on lima beans in Kent County and on snap beans in Sussex County. (Mason).

CORN EARWORM (Heliothis zea) - DELAWARE - Adults numerous in fields of lima beans in Kent and Sussex Counts. (Mason). ALABAMA - Moderate to heavy in okra in Henry County. (Grimes).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Larvae present in New Castle County, common in Kent County and numerous in Sussex County on lima beans. (Mason).

SPIDER MITES - IDAHO - Tetranychus spp. infestations continue severe in bean fields in the Twin Falls area. (Gibson). NORTH DAKOTA - T. telarius severe on raspberries at Hankinson. (N. D. Ins. Rpt.).

SQUASH BUG (Anasa tristis) - NEVADA - Heavy on melons in Moapa Valley, Clark County. (Lauderdale, Aug. 14).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - INDIANA - Heavy on cucurbits throughout the State. (Gould).

CARROT WEEVIL (Listronotus oregonensis) - NEW JERSEY - In a survey, 53 fields in 15 counties were examined and 13 were found to be infested. The heaviest infested area was in the vicinity of Vineland. No other infestation found except in the now very limited vegetable-growing section of Bergen County. (Ins. Dis. News1.).

BEET WEBWORM (Loxostege sticticalis) - SOUTH DAKOTA - High numbers migrating from weed areas into croplands in Davison County. (Mast).

SPINACH LEAF MINER (Pegomya hyoscyami) - VIRGINIA - Adults emerged from heavily damaged beet leaves in a Bland County garden about June 13, 1959. Det. by R. H. Foote. (Rowell, Mallory).

GRASSHOPPERS - FLORIDA - Causing damage to nursery plants and agricultural crops in Volusia, Flagler and Pasco Counties. (Fla. Coop. Sur.). UTAH - Damaging gardens, berry crops and margins of alfalfa fields locally throughout the foothill areas of the State. (Knowlton).

GOLDEN NEMATODE (Heterodera rostochiensis) - NEW YORK - Infestation was confirmed on a 12-acre field outside the generally infested area on the South Fork of Long Island, near Bridgehampton. In MARYLAND and DELAWARE, field sampling continued with approximately 1,500 samples taken. (PPC, East. Reg., July Rpt.). During July, surveys made in ALABAMA, ARKANSAS, GEORGIA and MISSISSIPPI were negative. (PPC, So. Reg.).

#### TOBACCO INSECTS

TOBACCO HORNWORMS (Protoparce spp.) - NORTH CAROLINA - Light on tobacco in Granville County. (Chamberlin). INDIANA - Very light in all fields surveyed in Madison County. Populations somewhat lighter than in previous years. (Deay, Matthew).

TOBACCO BUDWORMS (Heliothis spp.) - NORTH CAROLINA - Light on tobacco in Granville County. (Chamberlin). MARYLAND - Very light in tobacco. (U. Md., Ent. Dept.).

GREEN PEACH APHID (Myzus persicae) - NORTH CAROLINA - Light on tobacco in Granville County. (Chamberlin). MARYLAND - Light to heavy on maturing tobacco in southern area. Several species of predators attacking aphids common in tobacco fields in Prince Georges County. (U. Md., Ent. Dept.). INDIANA - Light in one of 12 fields examined in Madison and Ripley Counties. (Deay, Matthew). VIRGINIA - Probably this species, severe on tobacco in many Prince Edward County fields. (Peery).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Light on tobacco in Granville County. (Chamberlin). MARYLAND - Light on tobacco in southern area. (U. Md., Ent. Dept.). INDIANA - Light in most fields surveyed in Madison County. Damage estimated at less than one percent. (Deay, Matthew).

## COTTON INSECTS

**BOLL WEEVIL (*Anthonomus grandis*) - TENNESSEE** - Migration is definitely under way. Fields that had no infestations are now infested. The bulk of the infestation is still in the southern counties but some are being found further north. Counts made in the southern counties averaged 46 percent this week. (Locke). **ARKANSAS** - Second, third and beginning of fourth generation general. Counts vary from field to field, but general activity has increased considerably from last week. Range 10-100 percent infestation in southwestern area. (Ark. Ins. Rpt.). **MISSOURI** - Of 862 fields inspected, 24 were infested. Percent punctured squares and bolls ranged 0-8. Some widely scattered fields outside the scouted area ranged 35-61 percent punctured squares. (Kyd, Thomas, Munson). **OKLAHOMA** - Counts ranged 9-88 damaged squares per 100 squares examined in the east central area, and averaged 39 percent infestation. Ranged 40-98 percent infestation in 6 cotton fields in McCurtain and Choctaw Counties, and averaged 66 percent. Ranged 6-27 percent and averaged 15 in Marshall, Love and Jefferson Counties. Ranged 0-8 percent and averaged 4 percent in 3 fields checked in Grady and Canadian Counties. Averaged 18 and 31 percent in two fields in McClain County. Ranged 6-8 percent and averaged 7 percent in 3 fields in Tillman County. (VanCleave et al.). **MISSISSIPPI** - Increased in some fields. Light local movement from field to field in some areas of the delta counties. (Merkl et al.). **SOUTH CAROLINA** - Severe in small acreages in Beaufort County. Have begun to migrate in Edgefield County and number of punctured bolls and squares and adult weevils greater than for several years. Damage is great in wet areas and slight in dry areas of McCormick County. (Nettles et al.). **LOUISIANA** - Tensas Parish: ranged 1-78 percent and averaged 21 percent in 282 fields. Ouachita Parish: ranged 1-62 percent and averaged 12 percent in 105 fields. Franklin Parish: ranged 1-94 percent and averaged 33 percent in 144 fields. Heavy emergence of third generation observed in several parishes during past week. (Spink). Infestations above the 25 percent level in many fields in Madison Parish this week. (Smith et al.). **TEXAS** - Damage heavy in fields receiving no or inadequate treatment in McLennan and Falls Counties. Mostly irrigated or succulent fields. (Parenchia et al.). Spotted heavy infestations in the south central, central and east areas. Continue to cause concern in the west cross timbers, central, northeast and isolated sections of the northwest area. (Gaines). **ALABAMA** - Evident in south and central area. Adults plentiful in most fields surveyed. Have increased considerably in northern area during past week. General infestations in that area range 50-65 percent. (Ruffin, Grimes, Carter, Bass).

**BOLLWORMS (*Heliothis* spp., et al.) - NEVADA** - Only occasional specimens found in Moapa Valley, Clark County, and Pahrump Valley, Nye County. (Bechtel, Lauderdale, Parker, Aug. 14). **TENNESSEE** - Increasing rapidly over the cotton-growing area. Averaged 3 larvae per 100 terminals. (Locke). **ARKANSAS** - Fourth generation adults emerging in large numbers. Egg deposition general on green succulent cotton. Egg counts in some areas are as high as 184 per 100 plants. (Ark. Ins. Rpt.). **MISSOURI** - Of 862 fields inspected, 842 were infested. Egg counts ranged 1-16 per 100 terminals and larvae ranged 1-36 per 100 terminals. (Kyd, Thomas, Munson). **GEORGIA** - Light to heavy in small bolls in some cotton fields in the southern area. (Johnson). **OKLAHOMA** - Ranged 0-9 percent and averaged 2 percent in Wagoner, Muskogee, Sequoyah, Haskell, Le Flore, and McIntosh Counties. Ranged 3-16 percent and averaged 7 percent in Marshall, Love and Jefferson Counties. Averaged about 25 percent in some untreated cotton fields in Grady and Canadian Counties. Ranged 1-15 percent and averaged 8 percent in 3 fields in McClain and Caddo Counties. Ranged 4-16 percent and averaged 10 percent in 3 fields in Tillman County. (VanCleave et al.). **ARIZONA** - Medium in some fields in Maricopa and Pinal Counties. Egg counts low. (Ariz. Coop. Sur.). **MISSISSIPPI** - Egg deposition very spotty. Counts range 0-47 eggs per 100 terminals. Higher in green succulent cotton and in fields where large populations are present. (Merkl et al.). **LOUISIANA** - Ouachita Parish: ranged 0-5 percent and averaged 1 percent in 105 fields. Tensas Parish: ranged 1-4 percent and averaged 1 percent in 62 fields. Franklin Parish: ranged 0-4 percent and averaged 1 percent in 143 fields. (Spink). Some damage to bolls observed in a few fields in Madison Parish. Egg

deposition increasing this week in cotton plant terminals. (Smith et al.). TEXAS - Egg deposition still heavy in irrigated or succulent fields in McLennan and Falls Counties. (Parenchia et al.). Continue to be a problem in all areas where plants still attract adults. Infestations range from light and spotted to very heavy. (Gaines). ALABAMA - Continues to increase throughout State. Heavy in Conecuh and Houston Counties. Larvae feeding in large bolls in these areas. In northern area larvae and eggs plentiful. In some localized areas egg counts were as high as 50 per 100 terminals. (Grimes, Ruffin, Bass). CALIFORNIA - Heavy egg deposition and hatching continues in Imperial County. (Peterson). Increasing rapidly in Tulare County and the San Joaquin Valley. (Leigh).

CABBAGE LOOPER (Trichoplusia ni) - OKLAHOMA - Light to medium in Wagoner County where ragging of leaves quite common. Isolated infestations noted in other areas in the east central area. Light to medium in isolated fields throughout the south central and southwestern areas. (VanCleave et al.). ARIZONA - Light to medium in many fields in central area. Egg counts continuing high. (Ariz. Coop. Sur.). MISSISSIPPI - Light infestations along field margins in delta counties. (Merkl et al.). TEXAS - Medium to heavy "ragging" of leaves in a few fields in McLennan and Falls Counties. (Parenchia et al.). Causing "ragging" from the south plains area to the northeast area with mostly spotted infestations. (Gaines). CALIFORNIA - Increasing and causing considerable leaf damage in Imperial Valley. (Peterson). Generally light over Kern County with high populations in the Arvin area. (Leigh).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - A limited amount of green boll inspection was conducted in 13 counties during July. ARKANSAS - First specimen of the season was taken from a green boll originating out of the State and intercepted at the Homan Road Station, July 13. All inspections made during July in ALABAMA, LOUISIANA and MISSISSIPPI were negative. (PPC, So. Reg.). CALIFORNIA - Blossom inspection was completed in the San Joaquin Valley during July with negative results. (PPC, West. Reg.). NEVADA - Surveys negative through August 14, at Clark and Nye Counties. (Parker). MEXICO - Lint cleaner inspections in the Matamoros, Tamaulipas district indicate light infestation. The Laguna region of Durango and Coahuila had increase over 1958, but properly timed insecticide applications holding pest under control. Within the regulated area in the States of Tamaulipas, Coahuila, Durango, Chihuahua and Sinaloa, 276 locations involving 336,701 acres of cotton in 28 Municipios were inspected and of these 222 locations involving 329,997 acres in 25 Municipios were found infested. (PPC, Mex. Reg.).

BEET ARMYWORM (Laphygma exigua) - ARIZONA - Counts down in many fields previously heavily infested. (Ariz. Coop. Sur.).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Increasing slowly in some fields in Maricopa and Pinal Counties. Heaviest populations in the Coolidge to Gilbert area. In Yuma County, infestations still heavy in some fields with severe foliage damage in many cases. (Ariz. Coop. Sur.).

APHIDS - TENNESSEE - Increasing slightly but damage is light so far. (Locke). ARKANSAS - Increasing in cotton-growing areas. (Ark. Ins. Rpt.). OKLAHOMA - Aphis gossypii light in occasional fields in the east central area. Some light to medium infestations in Washita and Kiowa Counties. (VanCleave et al.). MISSISSIPPI - Light to medium generally over the delta counties. (Merkl et al.). LOUISIANA - In two fields inspected in Madison Parish, an average of .04 per square inch of leaf were found. (Smith et al.). ALABAMA - A. gossypii increasing in the Tennessee Valley area. Very heavy localized infestations in areas of Madison and Cullman Counties. (Ruffin).

SPIDER MITES - TENNESSEE - Continue to increase slightly and damage is heavy in some fields. The number of fields found to be infested is increasing. (Locke) MISSOURI - Of 862 fields inspected, 355 were infested to some degree. (Kyd, Thomas, Munson). OKLAHOMA - Tetranychus sp. severe in isolated fields in the

Chickasha area. (Bryan). MISSISSIPPI - Light to medium generally over the delta counties. (Merkl et al.). LOUISIANA - In two fields inspected in Madison Parish, an average of 3.96 per square inch of leaf was found. (Smith et al.). ALABAMA - Continue to spread throughout State. Moderate in Conecuh County. In northern area are present to some degree in all fields. Severe defoliation has occurred in areas where control not applied. (Grimes). CALIFORNIA - Heavy over most of Kings County. (McCutcheon). Increasing sharply over wide area of Imperial County. (Peterson). Abundant in areas of San Joaquin Valley and increasing where controls were inadequate. (Leigh). Damage decreasing in Tulare County due to heavy predator populations. (George).

STINK BUGS - ARIZONA - Euschistus servus medium in some Graham County fields. Light to medium in central area. (Ariz. Coop. Sur.).

LYGUS BUGS (Lygus spp.) - NEVADA - Populations low in most fields in Pahrump Valley, Nye County, because of control measures or high predator populations. Only occasional specimens found in Moapa Valley, Clark County. (Bechtel, Lauderdale, Parker, Aug. 14). ARIZONA - Continues as the number-one problem in cotton over the State. (Ariz. Coop. Sur.). CALIFORNIA - Reaching economic levels in some fields, especially near recently harvested alfalfa fields in Kings County. (McCutcheon). Increasing where heavy populations have been occurring in Imperial County. (Peterson). Reinfestations occurring in many fields in San Joaquin Valley where controls were applied. (Leigh). OKLAHOMA - Infestation in a Washita County field 4 percent. (Hudson).

COTTON LEAFWORM (Alabama argillacea) - TEXAS - Heavy spotted infestations in Tom Green and Schleicher Counties. (Gaines).

A LEAF ROLLER (Platynota stultana) - CALIFORNIA - Still building up and damage becoming significant in many fields in Imperial County. (Peterson).

FLEAHOPPERS - MISSOURI - Of 862 fields inspected, 648 were infested with from 0 to 70 per 100 terminals. (Kyd, Thomas, Munson). TEXAS - Heavy in some fields in Hockley, Lubbock, Lynn and Terry Counties. (Gaines).

GRASSHOPPERS - TEXAS - Nymphs and adults causing damage to blooms and leaves in Tom Green, Runnels and Schleicher Counties. (Gaines).

PALE STRIPED FLEA BEETLE (Systema blanda) - NEVADA - Numerous in cotton fields in Moapa Valley, Clark County. Infestations higher in weedy fields with feeding primarily on lower leaves and bracts. (Bechtel, Lauderdale, Parker, Aug. 14).

WHITEFLIES - CALIFORNIA - Heavy, with some fields showing marked decrease in top-set of bolls in Imperial County. (Peterson).

A FIELD CRICKET (Acheta sp.) - ARIZONA - Heavy and troublesome in a few fields in Pinal County. (Ariz. Coop. Sur.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

GYPSY MOTH (Porthetria dispar) - NEW JERSEY - One male taken at Jockey Hollow National Historical Park, Morris County, July 23, and another on July 30. One moth taken in the Hibernia area of the same county, July 31. NEW YORK - Living female pupa found under burlap band on a tree at Davenport, Delaware County, July 30. First male moths were recovered July 9 in Suffolk County and males were trapped in the Hudson Valley area by mid-July. Heaviest recoveries in Dutchess and Putnam Counties occurred in towns adjoining untreated areas in Connecticut, which may indicate serious infiltration from generally infested areas nearby. Lesser numbers were trapped in treated areas of Orange, Ulster and Westchester Counties. Heavy numbers were trapped outside treated sections of Ulster County. Specimens were also recovered in the Mohawk Valley and in Otsego and Delaware Counties. (PPC, East. Reg.). WEST VIRGINIA - This year's trapping results negative. (W. Va. Ins. Sur.). PENNSYLVANIA - Single male recovered in trap in forest, Perry County, July 17. No further recoveries. (Nichols). MICHIGAN - One trap in Windsor Township of Eaton County contained 14 male moths when checked on July 31, and collected an additional 7 moths over the weekend. Another trap in the same township collected one moth and at the same time another male moth was collected in a trap in Clarence Township in Calhoun County. (PPC, Cent. Reg.).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - TEXAS - Continued epidemic in Hardin and Liberty Counties. Fourteen new spots located by aerial observations, of which six had over 100 brood trees. Total spots picked up by aerial reconnaissance this year are 87 with 12 having 100 brood trees. Control work hampered by continuous, heavy rains. Twenty-seven spots lack control. (Young).

PALES WEEVIL (Hylobius pales) - RHODE ISLAND - Adults causing heavy damage in pine plantations in the Scituate area. (Mathewson).

WHITE-PINE WEEVIL (Pissodes strobi) - WEST VIRGINIA - Abundant on pine in south-east. (W. Va. Ins. Sur.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - PENNSYLVANIA - Very heavy infestation of Scotch pine in Columbia County caused death of about 24 trees. (Nichols).

SAWFLIES - TEXAS - Infestations of a sawfly were serious in Hardin, Liberty and Polk Counties where control is underway on 17,000 acres. Pines up to 100 feet tall were defoliated. Another species is attacking pine reproduction, both natural and planted, throughout eastern area. Partial defoliation. (Young).

A LEAF-EATING GRASSHOPPER (Dendrotettix quercus) - WISCONSIN - Outbreak on oak trees involves about 35-45 square miles on either side of Wood-Adams County line. (Wis. Coop. Sur.).

COTTONY MAPLE SCALE (Pulvinaria innumerabilis) - OKLAHOMA - Light infestation on twigs of Ulmus sp. in Garvin County on May 15, 1959. This is first published record of this species in the State. (Apt).

A MAPLE MITE (Oligonychus aceris) - CALIFORNIA - Heavy infestation of silver maple trees on a nursery property in Arlington, Riverside County. This is the first record of this mite occurring in California and the West. (Cal. Coop. Rpt.).

FALL WEBWORM (Hyphantria cunea) - PENNSYLVANIA - Present but not serious on maple in Westmoreland County. (Udine). WEST VIRGINIA - Light on hardwoods statewide. (W. Va. Ins. Sur.). SOUTH DAKOTA - Conspicuous infestations on scattered shade trees in eastern area. (N. D. Ins. Rpt.).

UGLY-NEST CATERPILLAR (Archips cerasivorana) - RHODE ISLAND - Severe on a roadside wild cherry in South Kingstown and locally elsewhere in State. (Hansen, Mathewson).

LARGER ELM LEAF BEETLE (Monocesta coryli) - NORTH CAROLINA - Larvae injuring elms in Davie County. (Williams, Farrier).

ELM LEAF BEETLE (Galerucella xanthomelaena) - CALIFORNIA - Severe damage to Chinese elms in Lost Hills, Kern County. (Cal. Coop. Rpt.). OREGON - Adults abundant, with moderate to severe damage evident in areas of Willamette Valley. (Every). IDAHO - Many Twin Falls elm trees continue to be defoliated. (Gibson). KANSAS - The foliage of elms 50-100 percent injured in eastern one-half of Dodge City, Ford County. Oviposition underway. (Thompson). VIRGINIA - Defoliated some Chinese elms in Rockingham County. (Morris, Aug. 10).

EUROPEAN ELM SCALE (Gossyparia spuria) - DELAWARE - Very common on elm in New Castle County, resulting in death of some trees. (Bray).

A CHESTNUT-BARK BORER (Anoplodera nitens) - PENNSYLVANIA - Working in crotches of ornamental English oaks and causing concern in Westmoreland County. (Udine).

DOGWOOD BORER (Thamnospectia scitula) - NORTH CAROLINA - Killing dogwoods in Hoke County. (Williams, Farrier).

HAG MOTH (Phobetron pithecium) - PENNSYLVANIA - Found locally on forsythia in Carbon County. Judging from numbers sent in from all over State, species must be numerous this year. (Udine).

MIMOSA WEBWORM (Homadaula albizziae) - WEST VIRGINIA - Heavy on mimosa in scattered areas, statewide. (W. Va. Ins. Sur.). MARYLAND - Larvae moderately abundant, Prince Georges County. (U. Md., Ent. Dept.).

SCALE INSECTS - CALIFORNIA - Medium infestation of Chionaspis ortholobis on willows in San Diego. (Cal. Coop. Rpt.). WEST VIRGINIA - C. sylvatica moderate on blackgum in Greenbrier and Kanawha Counties. (W. Va. Ins. Sur.).

#### INSECTS AFFECTING MAN AND ANIMALS

A MUSCID (Musca autumnalis) - INDIANA - The first record for the State was June 3, 1959, in Randolph County, east central area. Specimens were collected by D. L. Matthew, and determined by C. W. Sabrosky. (Matthew). This record predates the note carried in CEIR 9(29):657. (PPC). ILLINOIS - Positive determinations have been made from McHenry, Boone, Stephenson, Jo Daviess, Carroll, Ogle and Kendall Counties. (Ill. Ins. Rpt.). WEST VIRGINIA - A fly, suspected to be this species, moderate to heavy on cattle in various areas of the State. (W. Va. Ins. Sur.).

HORN FLY (Siphona irritans) - TEXAS - Heavier than normal on beef cattle in Palo Pinto County. (Tex. Coop. Rpt.). OKLAHOMA - Counts per animal averaged 75 on 20 beef cows in McCurtain County, 90 on 75 beef cows in Pushmataha County, 30 on calves and 80 on cows in Jefferson County, 20.9 on 22 untreated cows at Stillwater and 500 on untreated dairy cattle in Tulsa area. (Goin, Mount, Vinson, Henderson, Taylor).

STABLE FLY (Stomoxys calcitrans) - OKLAHOMA - Counts per animal averaged 3 and 4 on beef cows in Pushmataha and McCurtain Counties respectively, 2.7 on 22 untreated cows at Stillwater and 15 on untreated dairy cattle in Tulsa area. (Goin, Mount, Henderson, Taylor).

TABANIDS - OKLAHOMA - Counts of Tabanus mularis averaged 1.5 per animal on 80 head of beef cattle in Jefferson County. (Vinson). Populations of this species building up through the east central area and numbers beginning to cause concern to inhabitants in the area. T. sulcifrons, T. equalis and T. mularis present in largest numbers. (VanCleave, Hatfield). LOUISIANA - Averaged 8 Tabanus sp. per

15-minute trapping period in Calcasieu, St. Landry, Caddo and Tensas Parishes. (Spink). TEXAS - Heaviest infestation of Tabanus atratus in years on livestock in upper coastal, coastal bend and southwest areas. (Garner, Price).

FLIES - WISCONSIN - Undetermined species very numerous and annoying in parts of Langlade County; very annoying to cows in Green County. (Wis. Coop. Sur.). Utah - Unspecified species unusually numerous in parts of south central Utah. (Knowlton). OKLAHOMA - Counts of Musca domestica averaged 15.3 per animal on 22 untreated cows at Stillwater. (Mount, Henderson).

MOSQUITOES - WISCONSIN - At Madison most of mosquitoes caught in traps are Aedes vexans. Large numbers of mosquitoes causing considerable annoyance in many areas. Problem expected to remain for some time due to rains. (Wis. Coop. Sur.). CALIFORNIA - Populations increased slightly in all except coastal areas of State. Culex tarsalis remained about the same with slight increases in the Central Valley. (Vector Control).

MASKED HUNTER (Reduvius personatus) - UTAH - In motor court rooms in south Sevier County. A number in light traps at Spanish Fork, Ogden and Benjamin. (Knowlton).

BROWN DOG TICK (Rhipicephalus sanguineus) - ARKANSAS - Collected at Fayetteville. First report for State. (Ark. Ins. Rpt.).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Adults averaged 1 and 2 per animal on cattle checked in Pushmataha and McCurtain Counties respectively. Larvae and nymphs heavy in both areas. (Goin).

MIDGES - OREGON - Chironomids numerous all summer, recently about 4 times as severe as in past years and piling up in heaps at lights of commercial establishments and homes in Klamath Falls area. (Bertrees, Schuh).

CAT FLEA (Ctenocephalides felis) - INDIANA - Heavy home and yard infestations in Tippecanoe, Steuben and Rush Counties. (Ent. Dept.).

#### STORED-PRODUCT INSECTS

KHAPRA BEETLE (Trogoderma granarium) - TEXAS - Survey work was concentrated in the El Paso area, with no new infestations found during July. OKLAHOMA - Surveys were conducted in 10 counties, with a total of 32 establishments examined, including 10 initial and 12 repeat inspections. ALABAMA - One initial and 7 repeat inspections were made of properties in Mobile County. (PPC, So. Reg.). MEXICO - Inspections were conducted in the states of Baja California, Sonora, Jalisco, Michoacan, Queretaro, Guanajuato and Chihuahua. No positive determinations were received during July. (PPC, Mex. Reg.).

A PYRALID (Aglossa pinguinalis) - MASSACHUSETTS - Specimens of this potential pest of stored cereals have been taken at the following localities: Barnstable, July 14, 1949, and June 23, 1958 (Kimball); a pair at Brookline, June 23, 1954 (Kamp); and at Dedham, July 3, 1958 (Cady). Determinations by E. G. Munroe. (Kimball).

#### BENEFICIAL INSECTS

LADY BEETLES - OKLAHOMA - Populations of Hippodamia convergens light in alfalfa fields surveyed in Arkansas River bottoms in east central area (VanCleave, Hatfield); light to heavy in cotton fields and heavy in grain sorghum fields checked in south central area (Vinson); ranged up to 0.5 per plant in cotton fields checked in Tillman County (Hatfield); and averaged 0.5 per sweep in a

Caddo County alfalfa field surveyed (Hudson). KANSAS - Primarily H. convergens, found in most alfalfa fields checked in central and north central area, with counts of 0-6 per sweep. (Peters).

LACEWINGS (Chrysopa spp.) - OKLAHOMA - Eggs common in a Choctaw County cotton field checked (Goin) and light numbers found in Tillman County cotton fields surveyed (Hatfield). KANSAS - Counts ranged 0-3 per sweep in alfalfa fields in central and north central areas of the State. (Peters).

NABIDS (Nabis spp.) - WYOMING - Extremely abundant in many crops in southeastern area of State. (Davison). OKLAHOMA - Light, up to 0.4 per sweep, in all alfalfa fields surveyed in Arkansas River bottoms in east central area. (VanCleave, Hatfield). KANSAS - Ranged 0-3 per sweep in central and north central area alfalfa fields. (Peters).

A SYRPHID (Mesogramma polita) - MARYLAND - Large numbers controlling corn leaf aphid were present in large numbers on the Eastern Shore. (U. Md., Ent. Dept.).

ALKALI BEE (Nomia melanderi) - WYOMING - Nesting sites in Riverton area, Fremont County, 10 percent larger than at same time in 1958. (Davison).

A WASP (Scolia dubia) - NORTH CAROLINA - Adults very abundant over lawns in Forsyth, Wake, Warren, and Wilson Counties. (Hammon, Scott, Lewis, Farrier).

#### MISCELLANEOUS INSECTS

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Adult activity spotty throughout the State. (Mathewson, Hansen). NEW YORK - A total of 99 beetles were trapped in 15 localities in 9 of 16 western counties. Scouting detected 5 beetles in a nursery at Gardenville, Erie County, and 13 at a nursery in Batavia, Genesee County. MAINE - Trapping began July 15, with no beetles recovered to the end of the month. VERMONT - Trapping began July 20, with a few beetles trapped again this year at Montpelier and Barre. (PPC, East. Reg.). TENNESSEE - An important extension of the infestation in Loudon County was discovered during July. SOUTH CAROLINA - Found for the first time in Lexington County during the month. ALABAMA - One positive identification was made of a specimen submitted from L. and N. Railroad Yards at Huntsville, and one was collected from the Farmer's Market at Birmingham. (PPC, So. Reg., July Rpt.). Several new infestations and considerable increased infestation have been found in the Central Region. MISSOURI - The new location reported in June north of St. Louis covers about 60 acres. Two beetles were captured in 2 traps at the southwest edge of St. Louis at Lambert Field airport. ILLINOIS - New infestations were revealed at Dolton, Markham, Calumet City and Mattoon, all suburbs in the south Chicago area except Mattoon. Reinfested areas include East Peoria, Kankakee, Chicago, Streator, Joliet, East St. Louis and Washington Park. In the Sheldon areas, beetles were found within and without the treated areas during July. INDIANA - New infestations were found at Crawfordsville, Seymour and Roachdale. MICHIGAN - Only beetles found were in the Metropolitan Detroit area and in Monroe County. Over 2,000 beetles were found in 9 traps on the Ford property in Dearborn in one week. In the Lambertville area, Monroe County, 11 and one-half square miles have been determined as infested. By the end of July, 72 acres in the Detroit area had been soil treated. OHIO - Adult populations were heavy during July. Many locations within the regulated area, previously free, are showing positive occurrences. Beetles have been found at 29 nurseries inside and 3 outside the regulated area, all determined beetle-free in previous years. An attempt is being made to delimit all new or enlarged infestations. The State is following up with foliage sprays. KENTUCKY - New infestations were found at South Portsmouth, Ashland and Harland. (PPC, Cent. Reg.).

EUROPEAN CHAFER (Amphimallon majalis) - NEW YORK - New find confirmed in Southport, Chemung County. Chafers were observed and trapped 2 miles east of a previous infestation at Lockport and an extension of an old infestation was discovered at Niagara Falls, both in Niagara County. Infestation has been confirmed at sites on Staten Island, the Battery Park, Manhattan, Governor's Island and Bedloe's Island in New York Harbor. Scouting and trapping in the upstate area showed a slight extension around the periphery of known infested areas, but was negative at old infested and regulated sites in Elmira and Minetto. Intensive scouting failed to reveal presence of this species in the vicinity of Binghamton, where suspected flight was reported. (PPC, East. Reg., July Rpt.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - MARYLAND - "Clouds" of beetles at sunset, Kaleshore, Anne Arundel County, August 13. (U. Md., Ent. Dept.).

A GALL INSECT - IDAHO - Heavy infestations in stems of dodder noted in scattered areas in vicinity of Marsing and Parma. (Scott).

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - RHODE ISLAND - Unseasonal swarms occurred during mid-August in the Providence area. (Mathewson).

#### CORRECTIONS

CEIR 9(25) : 553 - CHRYSANTHEMUM GALL MIDGE (Diathronomyia chrysanthemi) should read (Diarthronomyia chrysanthemi).

CEIR 9(28) : 620 - CUTWORMS - MONTANA - Determined by H. W. Capps as "definitely not Agrotis orthogonia." No species determined. (Roemhild).

CEIR 9(31) : 696, 706 - INSECT DETECTION - Micromyzus formosanus should read Micromyzus formosanus. The entire note should be changed to read: AN APHID (Micromyzus formosanus) - CALIFORNIA - Occurred as a heavy infestation on onions in Gonzales for a second record in Monterey County. First reported in May 1944, from Salinas Valley. (Cal. Coop. Rpt.).

CEIR 9(31) : 720 - Last statement under description should read: "Autumnalis also differs from domestica in that it has, on the ridge above the thoracic squama, a few fine bristles on its inner end." Delete "... the middle of the propleura base and ..."

CEIR 9(33) : 751 - Under EUROPEAN CORN BORER - MICHIGAN - Barada should read Baraga.

CEIR 9(33) : 756 - Ips vancouveri should read Ips montanus according to Wood, S. L. 1957 (Canad. Ent. 89(9) : 398).

CEIR 9(33) : 760 - A GRASSHOPPER MITE (Eutrombidium trigonum) should read RED GRASSHOPPER MITE (E. trigonum).

LIGHT TRAP COLLECTIONS

|                        | Pseud.<br>unip. | Agrot.<br>yps. | Laphyg.<br>frug. | Perid.<br>marg. | Protoparce<br>quinq. sexta |    | Heliothis<br>zea vires. |     |
|------------------------|-----------------|----------------|------------------|-----------------|----------------------------|----|-------------------------|-----|
| ALABAMA                |                 |                |                  |                 |                            |    |                         |     |
| Auburn 8/18            | 1               | 3              | 4                |                 |                            |    | 8                       |     |
| ARKANSAS               |                 |                |                  |                 |                            |    |                         |     |
| Fayetteville 8/13-19   | 4               | 6              |                  | 1               |                            |    | 50                      |     |
| Hope 8/13-19           | 4               | 3              |                  | 1               |                            |    | 9                       |     |
| *Morrilton 8/13-19     | 5               | 9              |                  |                 |                            |    | 26                      |     |
| FLORIDA                |                 |                |                  |                 |                            |    |                         |     |
| Gainesville 8/19       |                 |                |                  |                 |                            |    | 1                       |     |
| ILLINOIS               |                 |                |                  |                 |                            |    |                         |     |
| Urbana 8/14-20         | 55              | 32             | 19               | 18              | 13 spp.                    |    | 94                      |     |
| INDIANA (Counties)     |                 |                |                  |                 |                            |    |                         |     |
| Lawrence 8/12-14,16-18 | 12              | 1              |                  | 2               | 71                         | 45 | 6                       |     |
| Tippecanoe 8/14-20     | 41              | 4              |                  | 4               | 1                          | 4  | 26                      |     |
| KANSAS                 |                 |                |                  |                 |                            |    |                         |     |
| Garden City 8/12,17    | 1               | 15             |                  | 3               | 2                          |    | 16                      |     |
| Manhattan 8/15-20      | 20              | 9              |                  | 5               |                            |    | 14                      |     |
| Wathena 8/10-11,13     | 9               | 11             |                  | 1               | 29                         | 7  | 27                      |     |
| LOUISIANA              |                 |                |                  |                 |                            |    |                         |     |
| Baton Rouge 8/14-20    | 4               | 5              | 222              |                 |                            |    | 37                      |     |
| Franklin 8/17,19       |                 |                | 7                |                 |                            |    | 1                       |     |
| MARYLAND               |                 |                |                  |                 |                            |    |                         |     |
| Fairland 8/13-17       | 15              | 2              | 3                | 1               | 3                          | 4  | 8                       |     |
| Upper Marlboro 8/8-17  |                 |                |                  |                 | 32                         | 19 |                         |     |
| MISSISSIPPI            |                 |                |                  |                 |                            |    |                         |     |
| *Stoneville 8/14-20    | 47              | 11             | 319              | 2               |                            | 23 | 477                     | 13  |
| MISSOURI               |                 |                |                  |                 |                            |    |                         |     |
| Columbia 8/17-22       | 5               | 5              | 94               |                 | 13                         |    | 59                      |     |
| Sikeston 8/15-21       | 4               | 2              |                  | 4               |                            |    | 74                      |     |
| NEBRASKA               |                 |                |                  |                 |                            |    |                         |     |
| Concord 7/29-8/7       | 105             | 122            |                  | 7               |                            |    | 442                     |     |
| Kearney 8/3,4,7,10-13  | 143             | 22             |                  | 55              | 28                         | 2  | 127                     | 33  |
| Lincoln 8/5-17         | 321             | 510            |                  | 13              |                            | 7  | 42                      | 2   |
| North Platte 8/5-17    | 191             | 42             |                  | 93              | 28                         | 8  | 44                      | 2   |
| Scotts Bluff 7/31-8/13 | 84              | 130            | 1                | 202             | 9                          |    | 2                       | 2   |
| NORTH CAROLINA         |                 |                |                  |                 |                            |    |                         |     |
| Clayton 8/20           | 1               | 5              |                  |                 | 1                          | 10 | 24                      | 1   |
| Faison 8/20            | 1               | 6              |                  |                 |                            | 6  | 47                      |     |
| OREGON                 |                 |                |                  |                 |                            |    |                         |     |
| Salem 8/14-20          |                 | 11             |                  |                 |                            |    |                         |     |
| SOUTH CAROLINA         |                 |                |                  |                 |                            |    |                         |     |
| Charleston 8/17-23     | 5               | 5              | 26               |                 |                            | 15 | 140                     | 2   |
| Clemson 8/8-21         | 105             | 40             | 13               | 7               | 3                          | 15 | 166                     | 1   |
| TEXAS                  |                 |                |                  |                 |                            |    |                         |     |
| Brownsville 8/1-7      |                 | 72             | 448              |                 | 10                         | 5  | 70                      | 172 |

(Continued on page 815)

\*Two traps - Morrilton; 4 traps - Stoneville

LIGHT TRAP COLLECTIONS - Continued

|                       | Pseud.<br>unip. | Agrot.<br>yps. | Laphyg.<br>frug. | Perid.<br>marg. | Protoparce<br>quinq. sexta | Heliothis<br>zea vires. |
|-----------------------|-----------------|----------------|------------------|-----------------|----------------------------|-------------------------|
| WISCONSIN             |                 |                |                  |                 |                            |                         |
| Antigo 8/10-16        | 14              | 18             |                  | 13              |                            |                         |
| *Arlington 8/11-17    | 131             | 98             | 28               | 87              |                            | 41                      |
| Beaver Dam 8/11-17    | 47              |                |                  |                 |                            | 3                       |
| Bryon 8/11-17         | 92              | 28             |                  | 61              |                            | 36                      |
| Fox Lake 8/11-17      | 59              |                |                  |                 |                            | 50                      |
| Janesville 8/11-17    | 33              |                |                  |                 | 1                          | 24                      |
| Johnsburg 8/11-17     | 21              | 12             |                  |                 |                            | 2                       |
| La Crosse 8/5-12      | 185             | 112            |                  | 33              |                            | 9                       |
| Middleton 8/13-19     | 68              | 19             |                  | 23              |                            | 1                       |
| Ripon 8/11-17         |                 |                |                  |                 |                            | 7                       |
| River Falls 8/11-15   | 17              | 3              |                  | 4               |                            | 2                       |
| Rosendale 8/11-17     |                 |                |                  |                 |                            | 17                      |
| Stevens Point 8/11-17 | 4               | 6              |                  | 1               |                            | 24                      |
| *Theresa 8/11-17      |                 |                |                  |                 |                            | 3                       |
| Waterford 8/11-17     | 37              |                |                  |                 |                            |                         |

ADDITIONAL COLLECTIONS - VELVETBEAN CATERPILLAR (*Anticarsia gemmatilis*) - LOUISIANA, Baton Rouge (8/14-20) - 2; SOUTH CAROLINA, Charleston (8/17-23) - 11.

\*Two traps - Arlington; 3 traps - Theresa

ADDITIONAL NOTES

VIRGINIA - FALL ARMYWORM (*Laphygma frugiperda*) heavily damaged 6 of 10 acres of grain sorghum, 18 acres of waist-high corn and denuded a lawn in Lunenburg County. (Rowell, Powers, Aug. 14). SPIDER MITES have been heavy all season long on some soybean crops on the Eastern Shore. (Hofmaster).

NEW YORK - *Carpocapsa pomonella*, *Grapholitha molesta* and *Argyrotaenia velutinana* adults still being taken in small numbers in Niagara County. Most of the moth flight appears to be over for the season. CORN EARWORM (*Heliothis zea*) trap catches building up on Long Island, August 10-13, and increasing in the Hudson Valley area. EUROPEAN CORN BORER (*Pyrausta nubilalis*) second brood present in field in all larval instars, especially the fourth, in the Hudson Valley area. Ranged 3-16 percent over the area. TWO-SPOTTED SPIDER MITE (*Tetranychus telarius*) very heavy in some Nassau County home garden tomato plantings. Injury by LACE BUGS to sycamore and azaleas becoming increasingly noticeable in Suffolk County. (N. Y. Wkly. Rpt.).

NEW MEXICO - HARVESTER ANTS (*Pogonomyrmex* sp.) mounds very abundant on rangeland in southern Hidalgo County. GRASSHOPPERS numerous on many acres of rangeland in southern Hidalgo County. Nymphs and adults ranged from less than one to 14 per square yard. CODLING MOTH (*Carpocapsa pomonella*) infested almost 100 percent of untreated pears at Mesilla Park, Dona Ana County. BOLLWORM (*Heliothis zea*) generally light to moderate infestations damaging cotton in Eddy, Dona Ana and Luna Counties. STINK BUGS, LYGUS BUGS and FLEAHOPPERS heavily damaging in many cotton fields where growers failed to treat earlier in season. Generally light with occasional heavy infestations in Luna, Dona Ana and Eddy Counties. (N. M. Coop. Rpt.).

NEVADA - SPOTTED ALFALFA APHID (*Therioaphis maculata*) increased to 7 per stem in alfalfa stubble in Las Vegas, Clark County. Very light in Baker, White Pine County, and Reno-Sparks area, Washoe County. (Bechtel et al.). THREE-CORNERED ALFALFA HOPPER (*Spissistilus festinus*) increasing in Clark County. (Parker). CORN EARWORM (*H. zea*) averaged one larva per corn ear in southern Washoe County. TOMATO HORNWORM (*Protoparce quinquemaculata*) heavy on tomato plants in Reno, Washoe County. (Gardella). A LEAFHOPPER heavy and causing partial defoliation of sycamores in Reno, Washoe County. (Bechtel).

NEBRASKA - ALFALFA PLANT BUG (*Adelphocoris lineolatus*) averaged 5-20 and RAPID PLANT BUG (*A. rapidus*) averaged 1-8 per 10 sweeps in eastern area. (Roselle). SAW-TOOTHED GRAIN BEETLE (*Oryzaephilus surinamensis*) and GRAIN BEETLES (*Laemophloeus* spp.) heavy in stored milo in Otoe County. (Kantack).

#### HAWAIIAN INSECT NOTES

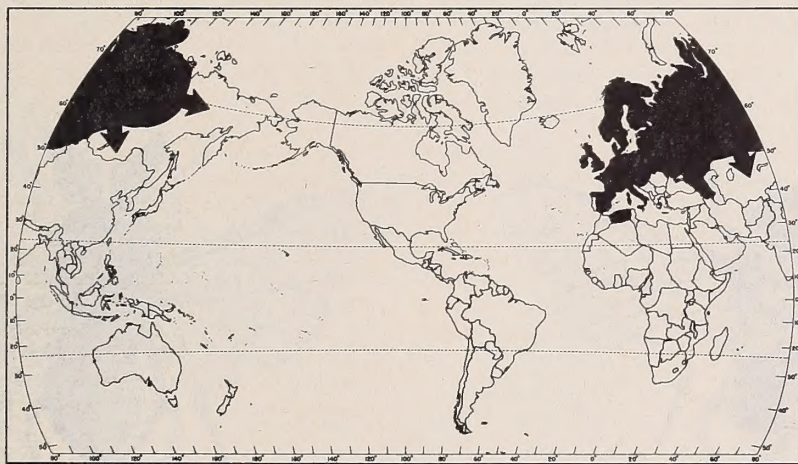
A COCONUT LEAF ROLLER (Hedylepta blackburni) caused much destruction to coconut fronds in Lahaina, Maui. The first adult of a LAWN ARMYWORM (Spodoptera mauritia acronyctoides) was taken in Lahaina, Maui. Previous reports of this species were based on larvae reared from eggs collected at this same locality. ARGENTINE ANT (Iridomyrmex humilis) was reported as established along the Manoa Cliff Trail on Mt. Tantalus, on June 20. The ants were evident for about one-half mile along the trail and were observed tending mealybugs, principally Pseudococcus montanus, on Freycinetia vines. (Hawaiian Entomological Society, July 13 Meeting).

A COCONUT LEAF ROLLER (H. blackburni) caused considerable damage on the windward exposed areas of Molokai, but not much damage in Kaunakai. Many coconuts were also damaged near Lahaina, Maui, on the windward exposed areas. Larvae of a TENEBRIONID (Eutochia lateralis) were found boring into seed pieces of sugarcane, particularly into the eyes, in cane planted for experimental purposes near Pahoa, Hawaii. About one-third of the seed in an acre plot had been ruined in a small kipuka (area isolated by lava flows) of good soil surrounded by lava from the Kilauea eruption of 1955. The species has been reported doing serious damage to sugarcane only once before, at Kohala, Hawaii, in 1922. PEA APHID (Macrosiphum pisi) was reported very abundant in alfalfa fields on Molokai, but did not appear to be causing much damage. (Hawaiian Entomological Society, August 10 Meeting).

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

PINE SAWFLY (Diprion pini (L.))

Economic Importance: This diprionid is of considerable economic importance as a sporadic defoliator of pines in Europe. Outbreaks may become very severe and completely defoliate relatively large acreages of pines when conditions are favorable. In September 1948, a severe outbreak in Scotch pine in eastern Spain defoliated areas that measured up to  $4\frac{1}{2}$  by  $1\frac{1}{2}$ -2 miles. In most areas, however, only a small percentage of pines defoliated in one year are killed, but the trees may die if defoliated for 2 successive years. Damaged trees also seem very susceptible to attack by several species of weevils. Damage appears to be most serious in trees on impoverished sites with sparse vegetation or in young trees from 4 to 8 years old. Needle damage will vary from 60 to 100 percent on the edges and in thin parts of the forest to 30 percent or less in the dense parts.



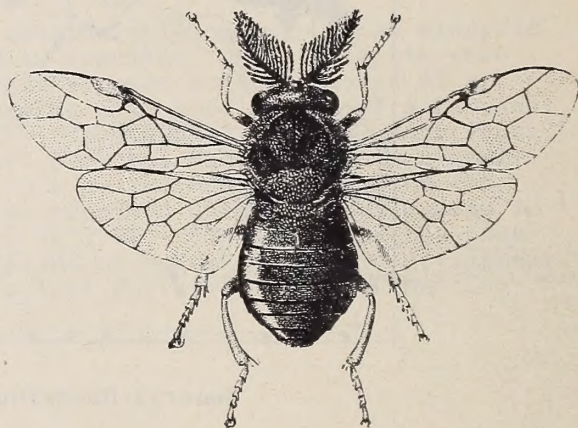
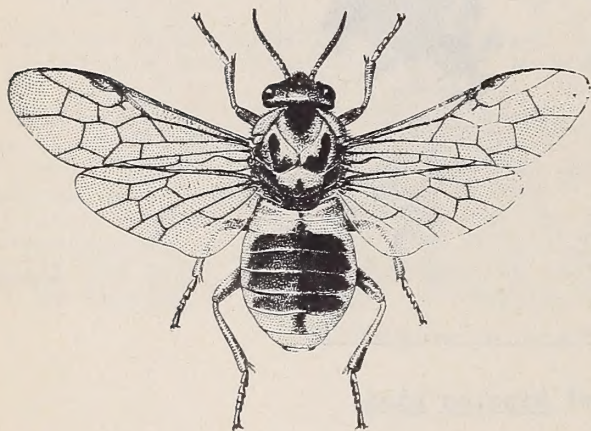
General Distribution of Diprion pini

Distribution: Occurs throughout most of Europe, Algeria and through Siberia.

Hosts: Attacks most pines, but apparently prefers Scotch pine. Will also attack spruce and fir.

Life History and Habits: The biology is nearly the same for all species of the genus. In France, under normal conditions, adults emerge in April. Females deposit eggs in rows in pine needles in slits cut by the saw-like process of the female. Young larvae begin to feed in May on the previous year's growth. Larvae start feeding on the needle near the tip and work downwards, eating about 5 mm. at a time. The attack continues into June with pupation occurring on the branches. A second generation appears in July. The larvae feed to the end of the summer, then enter hibernation under cover or in the soil. Overwintering larvae do not pupate until 2 or 3 weeks before emergence in the spring. The larvae molt 5 or 6 times. They are often found in colonies, principally when most of the foliage has been devoured on a branch. In the colder climates of Germany, Scandinavia and USSR, only a single generation may develop.

Description: ADULT - Wing expanse of the male is 16 mm., female 18 mm. The male is black, with apex of abdomen reddish and white spots on the underside of the first segment; antennae pectinate. The female body is dull yellow, with three dark areas on thorax and middle of abdomen black; antennae serriform; legs are yellow and wings have dusky borders, which are not noticeable in forewings of male. Newly emerged females of *D. pini* can be distinguished from *D. similis*, an important, introduced species that occurs in the United States, as follows: Tip of abdomen yellow in *D. pini*, greenish-blue in *D. similis*. LARVA - Pale green at first, almost whitish beneath, and with black feet. As larva matures, body color becomes dull brownish-green with dusky marks above prolegs and with dark brown head; feet are yellow with brown line at base. Full-grown larva is about 25 mm. long. COCOONS are variable, some being dark, others dull brownish-gray. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies and the U. S. National Museum). CEIR 9(35) : 8-28-59.



Adults of Pine Sawfly



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